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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,480	08/01/2003	Sang-Hyun Doh	5000-1-359	3015
33942	7590	09/25/2006	EXAMINER	
CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652			PASCAL, LESLIE C	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/

<b>Office Action Summary</b>	<b>Application No.</b> 10/632,480	<b>Applicant(s)</b> DOH ET AL.	
	<b>Examiner</b> Leslie Pascal	<b>Art Unit</b> 2613	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the splitting means splits the signals "into the protection channels". This appears to be misdescriptive because the signals really appear to be split into a working channels (the input to the OADM) and protection channels Input to switch). The add/drop section for performing adding and/or dropping optical signals passing through the first splitter section to a plurality of channels" appears to be misdescriptive also. From this it appears that the add/drop function is happening as the signal is passing through. It is not clear which portion of the split signal is add/dropped (which appears to be the working section). The description of the combining means is unclear. Usually more than one thing is "combined". For example, the output of the add/drop means is combined with the protection channels when there is no failure. In claim 3, line 3; it appears that the "first fiber" should be ---the second fiber---. In claims 9-10 and 14, "the second add/drop section", " the second splitting section" lack antecedent basis.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onaka (2004/0076426) or Cadeddu (5647035).

Onaka et al teach a first fiber (input to 410 in figure 42), a first splitter section (410), which splits signals into protection channels (input to 418), a first add/drop section (412), a first switching section (418, 416 and 414) for combining the protection channels. Although he does not teach specifics about his controlling section, the switches are controlled based on failure. It is obvious, if not inherent that there is a controlling means controlling the switches. This rejection is made less than 35 USC 103 in view of the 112 problems. It would appear obvious that the protection channels that are switched as claimed are "combined". It would *appear that if the applicant corrected the above 112 problems to correctly claim the combining of protection with working channels*, the art and 112 rejections would be overcome. Neither Cadeddu nor Onaka teach combining the protection channels with working channels as taught by the applicant.

In regard to claims 2 and 4, in operation, signals 1-16 are passed from element 410 to 412 if there is no failure. Wavelengths 17-32 are passed from 410 to 417 if there is a failure. These signals are not used (due to switching – 1-16 are not passed to 412 if there is a failure and 17-32 are not passed to 417 if there is no failure). Therefore, it would have been obvious to use a filter in order to avoid unwanted noise and only pass the signals that are to be used in the system of Onaka. Cadeddu teaches a similar system to Onaka. The wavelength demultiplexer acts as a filter.

5. Claims 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadeddu or Onaka as applied to claim 1 above, and further in view of CN1279548A.

In regard to claim 5, although Cadeddu and Onaka do not teach specifics about their ADM's, CN1279548A, of record disclosed an add/drop section for use in the optical ring network. More specifically, it disclosed the following technical features (as seen from Paragraph 3, Page 6 to Paragraph 2, Page 11 of 'the Specification and Figures 2 ' and 5 in Reference 2): the add/drop section comprises a demultiplexer for performing wavelength division demultiplexing optical signals and for outputting a plurality of channels from the demultiplexed optical signals; an optical receiver for performing a photoelectric conversion with respect to channels dropped from the demultiplexer and for outputting the converted channels; an optical transmitter for outputting channels to added; a multiplexer for performing wavelength division multiplexing channels inputted from the demultiplexer and from the first optical transmitter and for outputting the multiplexed channels. Moreover, the functions of the above technical features in CN1279548A are the same as those in the present invention, that is, are all for providing the function for adding/dropping a signal in the node of the optical network. Therefore, it gave a teaching for applying the above technical features disclosed by CN1279548A into the disclosed inventions of Cadeddu or Onaka in order to the technical problem.

Further, in regard to claims 5 and 10; the combination of CN1279548A and either Cadeddu or Onaka do not specifically teach a first tap coupler, provided on a path between the first demultiplexer and the first optical receiver, for splitting a part of the channel inputted into the first optical receiver and for outputting the split channel to the controlling section, and a second tap coupler, provided on a path between the first

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optical transmitter and 'the first demultiplexer, for splitting a part of the channel outputted from the first optical transmitter and for outputting the split channel to the controlling section, as defined in Claim 5. It is commonly known in the art for the control section to recognize and respond the link failure by monitoring the signal input to the optical receiver and output from the optical transmitter. As such, it is obvious for those skilled in the art to obtain the technical solution of Claim 5 by combining CN1279548A with the above common technical means on basis of Onaka or Cadeddu. With regard to claims 6-9 and 11-13, CN1279548 teaches that it is well known to use AWGs and photo detectors or their equivalent (which would obviously be a photodiode. With regard to the laser diode, it is well known to use laser diodes as transmitters in order to provide a high power signal. Its additional technical feature have been disclosed by Cadeddu (as seen from Lines 49-51, Column 7 and Lines 25-58, column 8 of the Specification and Figures 3-5 in Reference 1): a second switch section comprises a cross-connection section (equals to the second switch as defined in Claim 14) including IIA and 12B, for performing one of passing and switching of optical signals in the protection channels inputted from the demultiplexer 10B based on a control signal generated by the controlling section; a coupler 120B (equals to the fourth coupler as defined in Claim 14) for combining optical signals in the protection channels passing through the cross-connection section including IIA and 12B, with optical signals inputted from the second add/drop section 13 and for outputting the combined results; a coupler 12B (equals to the fifth coupler as defined in Claim 14) for combining the added/dropped optical signals inputted from the multiplexer in the

second add/drop section 13 and optical signals in the protection channels inputted from the coupler 120B and for outputting the combined results; and a coupler 120A (equals to the sixth coupler as defined in Claim 14), provided between the demultiplexer 10A and the first add/drop section 13, for combining output channels outputted from the cross-connection section including 1 IA and 12B with optical signals outputted from the demultiplexer 10A.

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 1-2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/446523. The co-pending application claims a splitter section (filters of claim 1), add/drop section (add/drop means of claim 1) and switching section (switching devices). Although the switching section is claimed broadly as switching the direction, when


"using the applicant's specification as a dictionary", it is obvious that the applicant's switching means operates as claimed as shown in figures 5 and 7a.

This is a provisional obviousness-type double patenting rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Pascal whose telephone number is 571-272-3032. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Leslie Pascal  
Primary Examiner  
Art Unit 2613